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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Bruno Egner-Walter

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EXAMINER

FERGUSON, MICHAEL P

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/537,937	Applicant(s) EGNER-WALTER ET AL.	
	Examiner MICHAEL P. FERGUSON	Art Unit 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-13, 15, 16 and 18-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-13, 15, 16 and 18-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 June 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 19, 2008 has been entered.

Claim Objections

2. Claims 11, 12 and 18 are objected to because of the following informalities:

Claim 11 (line 3) recites "formed in". It should recite --formed with--.

Claim 11 (line 4) recites "formed in". It should recite --formed with--.

Claim 11 (line 5) recites "fist pin". It should recite --first ball--.

Claim 12 (line 2) recites "first pin". It should recite --second pin--.

Claim 18 (line 1) recites "claim 11". It should recite --claim 15--.

For the purpose of examining the application, it is assumed that appropriate correction has been made.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 11, 15, 16, 18, 19 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Hathaway (US 6,352,227).

As to claim 11, Hathaway discloses a ball pin system comprising:

a first ball **A,12** (Figure 1 reprinted below with annotations); and

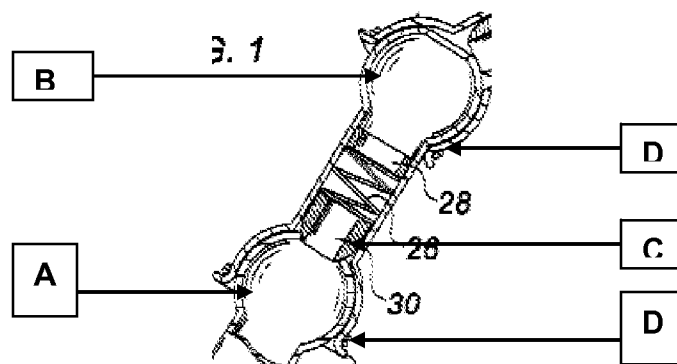
a first pin **30** integrally formed with the first ball (pin **30** is formed to function as a single unit with ball **12**; thus the pin is integrally formed with the ball; Figure 1);

a second ball **B,12** having a second pin **C,30** integrally formed with the second ball and mounted into a first recess **32** of the first ball (pin **30** is formed to function as a single unit with ball **12**; thus the pin is integrally formed with the ball; Figure 1);

the first ball and the second ball having a first ball cup **D,14** and a second ball cup **E,14**, respectively, mounted thereon, the first and second ball cups being pivotable or rotatable with respect to the first and second balls, respectively;

the first ball comprising the first recess situated generally opposite first pin, the first recess having a recess dimension and the first pin having a pin dimension, the pin dimension being at least as large as the recess dimension (a dimension of pin **30** is at least as large as recess dimension **32** so that the pin is received within the recess;

Figure 1; column 4 lines 29-32).



As to claim 15, Hathaway discloses a ball pin system wherein the second ball **B,12** comprises a second recess **32** situated generally opposite the second pin **C,30**; the first and second balls **12** and the first and second recesses **32** being generally coaxial when the second ball is mounted onto the first ball (Figure 1).

As to claim 16, Hathaway discloses a ball pin system wherein the first ball cup **14** is molded onto the first ball **A,12** (ball cup **14** fits the contours of ball **12**, thus the ball is molded onto the first ball; Figure 1).

As to claim 18, Hathaway discloses a ball pin system wherein the second ball cup **E,14** comprises a stop **30** that is received in the second recess **32** to facilitate limiting a rotation of a rod **10** coupled to the second ball cup (Figure 1, column 3 lines 20-24).

As to claim 19, Hathaway discloses a ball pin system wherein the first ball **A,12** comprises a first diameter and the second ball **B,12** comprises a second diameter, the first and second diameters being the same (Figure 1).

As to claim 22, Hathaway discloses a ball pin system wherein the second pin **C,30** has a second pin dimension, the second pin dimension being substantially the same as the recess dimension so that the second pin may be press fit into the first recess **32** (Figure 1).

5. Claims 11, 16, 19 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Thompson et al. (US 6,719,312).

As to claim 11, Thompson et al. disclose a ball pin system comprising:

a first ball **132**; and

a first pin **136** integrally formed with the first ball;

a second ball **100** having a second pin **122** integrally formed with the second ball and mounted into a first recess **130** of the first ball;

the first ball and the second ball having a first ball cup **78** and a second ball cup **60**, respectively, mounted thereon, the first and second ball cups being pivotable or rotatable with respect to the first and second balls, respectively;

the first ball comprising the first recess situated generally opposite first pin, the first recess having a recess dimension and the first pin having a pin dimension, the pin dimension being at least as large as the recess dimension (Figures 2 and 3).

As to claim 16, Thompson et al. disclose a ball pin system wherein the first ball cup **78** is molded onto the first ball **132** (ball cup **78** fits the contours of ball **132**, thus the ball is molded onto the first ball; Figure 2).

As to claim 19, Thompson et al. disclose a ball pin system wherein the first ball **132** comprises a first diameter and the second ball **100** comprises a second diameter, the first and second diameters being the same (Figure 2).

As to claim 22, Thompson et al. disclose a ball pin system wherein the second pin **122** has a second pin dimension, the second pin dimension being substantially the same as the recess dimension so that the second pin may be press fit into the first recess **130** (Figure 2).

6. Claims 11, 13, 15, 16, 19 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Kimura et al. (US 5,046,764).

As to claim 11, Kimura et al. disclose a ball pin system comprising:

a first ball **9**; and

a first pin **12** integrally formed with the first ball;

a second ball **9** having a second pin **12** integrally formed with the second ball and mounted into a first recess **10** of the first ball;

the first ball and the second ball having a first ball cup **65** and a second ball cup **65**, respectively, mounted thereon, the first and second ball cups being pivotable or rotatable with respect to the first and second balls, respectively;

the first ball comprising the first recess situated generally opposite first pin, the first recess having a recess dimension and the first pin having a pin dimension, the pin dimension being at least as large as the recess dimension (Figures 5 and 18).

As to claim 13, Kimura et al. disclose a ball pin system wherein the first recess **10** comprises a depth that is approximately three quarters the length of the first ball **9** (Figure 5).

As to claim 15, Kimura et al. disclose a ball pin system wherein the second ball **9** comprises a second recess **10** situated generally opposite the second pin **12**; the first and second balls **9** and the first and second recesses **10** being generally co-axial when the second ball is mounted onto the first ball (Figure 18).

As to claim 16, Kimura et al. disclose a ball pin system wherein the first ball cup **65** is molded onto the first ball **9** (ball cup **14** fits the contours of ball **9**, thus the ball is molded onto the first ball; Figure 18).

As to claim 19, Kimura et al. disclose a ball pin system wherein the first ball **9** comprises a first diameter and the second ball **9** comprises a second diameter, the first and second diameters being the same (Figure 5).

As to claim 22, Kimura et al. disclose a ball pin system wherein the second pin **12** has a second pin dimension, the second pin dimension being substantially the same as the recess dimension so that the second pin may be press fit into the first recess **10** (Figure 5).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 20 and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Hathaway.

As to claim 20 and 21, Hathaway does not disclose any structural or functional significance as to the specific size of the first and second balls **12** (Figure 1). Hathaway fails to disclose a ball pin system wherein the first ball comprises a first diameter and the second ball comprises a second diameter, wherein the second diameter is smaller than the first diameter.

The applicant is reminded that a change in the size of a prior art device, wherein no structural or functional significance as to the specific size of an element is disclosed, is a design consideration within the skill of the art. In re Rose, 220 F.2d 459, 105 USPQ

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237 (CCPA 1955). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the ball pin system disclosed by Hathaway wherein the second ball diameter is smaller than the first ball diameter as Hathaway does not disclose any structural or functional significance as to the specific size of the first and second balls, and as such practice is a design consideration within the skill of the art which would yield expected and predictable results.

9. Claims 20 and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al.

As to claim 20 and 21, Thompson et al. do not disclose any structural or functional significance as to the specific size of the first and second balls **132,100** (Figure 2). Thompson et al. fail to disclose a ball pin system wherein the first ball comprises a first diameter and the second ball comprises a second diameter, wherein the second diameter is smaller than the first diameter.

The applicant is reminded that a change in the size of a prior art device, wherein no structural or functional significance as to the specific size of an element is disclosed, is a design consideration within the skill of the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the ball pin system disclosed by Thompson et al. wherein the second ball diameter is smaller than the first ball diameter as Thompson et al. do not disclose any structural or functional significance as to the specific size of the first and second balls, and as such practice is a design consideration within the skill of the art which would yield expected and predictable results.

10. Claims 20 and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al.

As to claim 20 and 21, Kimura et al. do not disclose any structural or functional significance as to the specific size of the first and second balls **9** (Figure 5). Kimura et al. fail to disclose a ball pin system wherein the first ball comprises a first diameter and the second ball comprises a second diameter, wherein the second diameter is smaller than the first diameter.

The applicant is reminded that a change in the size of a prior art device, wherein no structural or functional significance as to the specific size of an element is disclosed, is a design consideration within the skill of the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the ball pin system disclosed by Kimura et al. wherein the second ball diameter is smaller than the first ball diameter as Kimura et al. do not disclose any structural or functional significance as to the specific size of the first and second balls, and as such practice is a design consideration within the skill of the art which would yield expected and predictable results.

11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al. in view of Maughan et al. (US 6,059,480).

As to claim 12, Thompson et al. disclose a ball pin system wherein the second pin **122** is press-fit into the first recess **130** (Figure 2). Thompson et al. fail to disclose a ball pin system wherein the second pin is knurled.

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Maughan et al. teach a ball pin system wherein a ball pin **34** is knurled and press-fit into a recess **32**; knurling **40** providing a secure connection which prevents relative rotation between pin **34** and recess **32** (column 1 lines 24-34, column 2 lines 24-30, Figures 1 and 4-7). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the ball pin system disclosed by Thompson et al. wherein the first pin is knurled as taught by Maughan in order to provide a secure connection which prevents relative rotation between the second pin and the first recess.

Response to Arguments

12. Applicant's arguments filed June 19, 2008 have been fully considered but they are not persuasive.

As to claim 11, Attorney argues that:

Hathaway does not disclose a ball pin *wherein the recess has a recess diameter that is substantially the same as a diameter of the pin of the ball pin.*

Examiner disagrees. As to claim 11, Hathaway discloses a ball pin wherein the recess **32** has a recess diameter that is substantially the same as a diameter of the pin **30** of the ball pin (pin **30** is formed to function as a single unit with ball **12**; thus the pin is integrally formed with the ball; a diameter of pin **30** is substantially the same as recess diameter **32** so that the pin is received within the recess; Figure 1; column 4 lines 29-32).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Ferguson whose telephone number is (571)272-7081. The examiner can normally be reached on M-F (6:30am-3:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571)272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MPF
07/28/08

/Michael P. Ferguson/
Primary Examiner, Art Unit 3679